



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
-----------------	-------------	----------------------	---------------------	------------------

10/551,766

01/11/2006

Norihiko Fuchigami

27029U

4252

20529

7590

11/10/2010

THE NATH LAW GROUP

112 South West Street

Alexandria, VA 22314

EXAMINER

DAZENSKI, MARC A

ART UNIT

PAPER NUMBER

2481

MAIL DATE

DELIVERY MODE

11/10/2010

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/551,766	Applicant(s) FUCHIGAMI ET AL.	
	Examiner MARC DAZENSKI	Art Unit 2481	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 16 August 2010.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 6-29 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 6-13, 15-20 and 22-28 is/are allowed.
- 6) ☒ Claim(s) 14, 21 and 29 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 03 October 2005 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 101

35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

The USPTO "Interim Guidelines for Examination of Patent Applications for Patent Subject Matter Eligibility" (Official Gazette notice of 22 November 2005), Annex IV, reads as follows:

Descriptive material can be characterized as either "functional descriptive material" or "nonfunctional descriptive material." In this context, "functional descriptive material" consists of data structures and computer programs which impart functionality when employed as a computer component. (The definition of "data structure" is "a physical or logical relationship among data elements, designed to support specific data manipulation functions." The New IEEE Standard Dictionary of Electrical and Electronics Terms 308 (5th ed. 1993).) "Nonfunctional descriptive material" includes but is not limited to music, literary works and a compilation or mere arrangement of data.

When functional descriptive material is recorded on some computer-readable medium it becomes structurally and functionally interrelated to the medium and will be statutory in most cases since use of technology permits the function of the descriptive material to be realized. Compare *In re Lowry*, 32 F.3d 1579, 1583-84, 32 USPQ2d 1031, 1035 (Fed. Cir. 1994) (claim to data structure stored on a computer readable medium that increases computer efficiency held statutory) and *Warmerdam*, 33 F.3d at 1360-61, 31 USPQ2d at 1759 (claim to computer having a specific data structure stored in memory held statutory product-by-process claim) with *Warmerdam*, 33 F.3d at 1361, 31 USPQ2d at 1760 (claim to a data structure per se held nonstatutory).

In contrast, a claimed computer-readable medium encoded with a computer program is a computer element which defines structural and functional interrelationships between the computer program and the rest of the computer which permit the computer program's functionality to be realized, and is thus statutory. See *Lowry*, 32 F.3d at 1583-84, 32 USPQ2d at 1035.

Claims 14, 21 and 28 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter as follows. **Claims 14, 21 and 28** each define an "audio/video reproducing program" embodying functional descriptive material. However, the claim does not define a computer-readable medium or computer-readable memory and is thus non-statutory for that reason (i.e., "When functional descriptive material is recorded on some computer-readable medium it

Art Unit: 2481

becomes structurally and functionally interrelated to the medium and will be statutory in most cases since use of technology permits the function of the descriptive material to be realized” – Guidelines Annex IV). The scope of the presently claimed invention encompasses products that are not necessarily computer readable, and thus NOT able to impart any functionality of the recited program. Computer programs claimed as computer listings per se, i.e., the descriptions or expressions of the programs, are not physical “things.” They are neither computer components nor statutory processes, as they are not “acts” being performed. Such claimed computer programs do not define any structural and functional interrelationships between the computer program and other claimed elements of a computer which permit the computer program’s functionality to be realized. See Lowry, 32 F.3d at 1583-84, 32 USPQ2d at 1035.

Note:

A “signal” (or equivalent) embodying functional descriptive material is neither a process nor a product (i.e., a tangible “thing”) and therefore does not fall within one of the four statutory classes of § 101. Rather, “signal” is a form of energy, in the absence of any physical structure or tangible material.

Regarding **claim 8**, the examiner notes that the claim discloses a method comprising first through fifth steps. The examiner further notes that the claim discloses "performing encoding including a window function multiplying process and an orthogonal transformation process on an audio signal to be recorded" (see lines 6-8). The examiner maintains that undertaking this step would be impossible without the use of a particular apparatus (i.e., the step cannot be completely performed mentally, verbally or without a machine) and therefore the claim is drawn to statutory subject matter. No rejection under 35 USC 101 is necessary.

Regarding **claims 9, 16, and 24**, the examiner notes that the claims also contain a step of performing encoding including a window function multiplying process, as detailed in regards to claim 8 above. Therefore, claims 9, 16 and 24 are found to be statutory in view of the explanation set forth in claim 8 above.

Regarding **claim 12**, the examiner notes that the claim discloses a method comprising first through seventh steps. The examiner further notes that the claim discloses "a third step of resetting a system time clock of the apparatus so as to seamlessly connect video frames to be connected at each of connection points of the video objects included in the reproduction sequence" (see lines 18-20). The examiner maintains that undertaking this step would be impossible without the use of a particular apparatus (i.e., the step cannot be completely performed mentally, verbally or without a machine) and therefore the claim is drawn to statutory subject matter. No rejection under 35 USC 101 is necessary.

Regarding **claims 19 and 27**, the examiner notes that the claims also contain a step of resetting a system time clock, as detailed in regards to claim 12 above. Therefore, claims 19 and 27 are found to be statutory in view of the explanation set forth in claim 12 above.

Allowable Subject Matter

Claims 6-13, 15-20 and 22-28 are allowed.

The following is an examiner's statement of reasons for allowance:

Art Unit: 2481

Applicant's **claim 6** is drawn toward an audio/video recording apparatus for, at the time of recording a set of synchronized video data and audio data as a video object onto a recording medium, recording a reproduction sequence for connecting and reproducing a plurality of video objects in part or in whole onto the recording medium so that the reproduction sequence can be designated, comprising: audio encoding means that performs encoding including a window function multiplying process and an orthogonal transformation process on an audio signal to be recorded and outputs the audio data; video data changing means that changes the video data as necessary so that a video frame to be reproduced last in a video object and a video frame to be reproduced first in the following video object are reproduced seamlessly at a connection point; edition point determining means that determines an edition point in the audio frame so that a period of reproducing an audio frame to be reproduced last in the video object includes time of the connection point of the video frames, a period of reproducing an audio frame to be reproduced first in the following video object includes the time of the connection point, and the period of reproducing an audio frame in the video object and the period of reproducing an audio frame in the following video object partly overlap each other around the connection point; multiplexing means that multiplexes the audio data and the video data to generate the video object; control means that controls the multiplexing means so that an audio buffer occupation amount is equal to or less than a value obtained by subtracting a data amount of one audio frame from the upper limit of a specific audio buffer size, and generates a flag indicative of an audio multiplex state at the time of multiplexing by the multiplexing means; and recording means that records

Art Unit: 2481

the video object output from the multiplexing means controlled by the control means onto the recording medium together with a flag indicative of the audio multiplex state generated by the control means.

Applicant's independent **claim 6** comprises a particular combination that is neither taught nor suggested by the prior art. The closest prior art of record, Okada et al (US Patent 6,263,150) differs from the claimed invention by failing to teach or fairly suggest "the period of reproducing an audio frame in the video object and the period of reproducing an audio frame in the following video object partly overlap each other around the connection point" as well as "control means that controls the multiplexing means so that an audio buffer occupation amount is equal to or less than a value obtained by subtracting a data amount of one audio frame from the upper limit of a specific audio buffer size, and generates a flag indicative of an audio multiplex state at the time of multiplexing by the multiplexing means."

The examiner notes that independent **claims 7, 8, 9, 15, 16, 22, 24 and 28** all contain similar limitations as those deemed allowable in regards to claim 6, and are therefore found allowable in view of the explanation set forth in claim 6 above. Further, the examiner notes that although **claim 28** discloses "an audio/video recording program product," the preamble (see lines 6-7) further discloses it comprises "a non-transitory computer memory store or medium." The phrase "non-transitory" precludes such transitory embodiments as a signal, and further limits the claim to only statutory embodiments such as the DVD, DVD-RW and DVD-RAM disclosed in the specification at page 2, lines 1-5. Therefore, the examiner maintains the claim is drawn only to

Art Unit: 2481

statutory embodiments and is therefore found allowable in view of the explanation set forth in claim 6 above.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to MARC DAZENSKI whose telephone number is (571) 270-5577. The examiner can normally be reached on M-F, 9am-5pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Peter-Anthony Pappas can be reached on (571) 272-7646. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Application/Control Number: 10/551,766

Page 8

Art Unit: 2481

/MARC DAZENSKI/
Examiner, Art Unit 2481

/Peter-Anthony Pappas/
Supervisory Patent Examiner, Art Unit 2481